

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

KAPLAN Aaron et al

Serial No.: 10/669,174

Filed: September 24, 2003

For: Plants Characterized by Enhanced Growth and Methods and Nucleic Acid Constructs Useful for Generating Same

Group Art Unit: 1638

Attorney  
Docket: 26863

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

Applicant requests that MPEP 609 be complied with and the examiner consider information which has been considered by the Office in a parent application when examining (A) a continuation application, (B) a divisional application, or (C) a continuation-in-part application.

This Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

Sol Sheinbein

Registration No. 25,457

Date: July 11, 2004

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Application Number	10/669,174
Filing Date	09/24/03
First Named Inventor	KAPLAN
Group Art Unit	1638
Examiner Name	

Sheet	1	Of	3	Attorney Docket Number	26863
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## U.S. PATENT DOCUMENTS

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				First Named Inventor	KAPLAN
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				Examiner Name	
Sheet	2	Of	3	Attorney Docket Number	26863
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		Romero et al, "Cloning and characterization of a Na <sup>+</sup> -driven anion exchanger (NDAE1). A new bicarbonate transporter", <i>J Biol Chem.</i> 2000 Aug 11;275(32):24552-9.			
		Maeda et al, "Bicarbonate binding activity of the CmpA protein of the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7942 involved in active transport of bicarbonate", <i>J Biol Chem.</i> 2000 Jul 7;275(27):20551-5			
		Hill et al, "Functional analysis of conserved histidines in ADP-glucose pyrophosphorylase from <i>Escherichia coli</i> ", <i>Biochem Biophys Res Commun.</i> 1998 Mar 17;244(2):573-7.			
		Pakrasi et al, "Transport of Metals: A Key Process in Oxygenic Photosynthesis" from " <i>Regulation of photosynthesis</i> ", Aro et al, Eds., Kluwer Acad. Pub., Netherlands, Chap. 14, pp 253-264, 2001			
		Catsky et al, "Photosynthesis during leaf development", In: PESSARAKLI, M. (Ed.) <i>Handbook of photosynthesis</i> . New York: Marcel Dekker, 1997. p. 633-660.			
		Omata et al, "Identification of an ATP-binding cassette transporter involved in bicarbonate uptake in the cyanobacterium <i>Synechococcus</i> sp. strain PCC 7942", <i>Proc Natl Acad Sci U S A.</i> , 1999 Nov 9;96(23):13571-6			
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		Shibata et al, "Genes essential to sodium-dependent bicarbonate transport in cyanobacteria: function and phylogenetic analysis", <i>J Biol Chem.</i> 2002 May 24;277(21):18658-64.			
		Lieman-Hurwitz et al, "Enhanced photosynthesis and growth of transgenic plants that express <i>ictB</i> , a gene involved in HCO <sub>3</sub> <sup>-</sup> accumulation in cyanobacteria", <i>Plant Biotechnology Journal</i> , January 2003, vol. 1, iss. 1, pp. 43-50			
		Shibata et al, "Genes essential to sodium-dependent bicarbonate transport in cyanobacteria: function and phylogenetic analysis" <i>J Biol Chem.</i> 2002 May 24;277(21):18658-64. (abstract)			
		Badger et al, Evolution and diversity of CO <sub>2</sub> concentrating mechanisms in cyanobacteria", <i>Functional Plant Biology</i> , 19 March 2002, vol. 29, iss. 2-3, pp. 161-173(13) (abstract)			
		Bonfil et al., "Synechococcus PCC7942 putative protein (dc11) gene, partial cds, and putative proteins (dc12), (dc13), (dc14) and (di33) genes, complete cds", <i>Plant Biology</i> , submitted July 1, 1996 to Plant Biology, Hebrew University, Givat Ram, Jerusalem 91904 Israel			
Examiner Signature				Date Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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		Maeda et al, "Bicarbonate Binding Activity of the CmpA Protein of the Cyanobacterium Synechococcus sp. Strain PCC 7942 Involved in Active Transport of Bicarbonate", <i>Journal of Biological Chemistry</i> , 275(27): 20551-20555, 2000.			
		Reek et al, "Homology" in Proteins and Nucleic Acids: A Terminology Muddle and a Way Out of It", <i>Cell</i> , 50:667, 1987			
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		Lazar et al, "Transforming growth factor alpha: mutation of aspartic acid 47 and leucine 48 results in different biological activities", <i>Mol Cell Biol</i> . 1988 Mar;8(3):1247-52.			
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		Speilmeyer et al, "Semidwarf (sd-1), "green revolution" rice, contains a defective gibberellin 20-oxidase gene", <i>Proc Natl Acad Sci U S A</i> . 2002 Jun 25;99(13):9043-8. Epub 2002 Jun 19.			
		Makino et al, "Photosynthesis, plant growth and N allocation in transgenic rice plants with decreased Rubisco under CO <sub>2</sub> enrichment", <i>J Exp Bot</i> . 2000 Feb;51 Spec No:383-9.			
		Omata et al, "Sequencing and Modification of the Gene Encoding the 42-Kilodalton Protein in the Cytoplasmic Membrane of <i>Synechococcus</i> PCC 7942", <i>Plant Physiol.</i> , 93:305-311, 1990 (abstract)			
		Kaplan et al, Co <sub>2</sub> Concentrating Mechanisms In Photosynthetic Microorganisms", <i>Annu Rev Plant Physiol Plant Mol Biol</i> . 1999 Jun;50:539-570.			
		Altschul et al, "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", <i>Nucleic Acids Res</i> . 1997 Sep 1;25(17):3389-402			
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